

BOGDANKEVICH, V.V.; LUR'YE, B.R.

Construction of the Kaushany Canning Plant. Kons. i ov. prem.  
no.7:15-17 Jl '63. (MIRA 16:9)

1. Gosudarstvennyy soyuznyy proyektnyy institut po proyektirovaniyu predpriyatii pishchevoy promyshlennosti.

DERBAREMDI~~E~~, M.I.; SEREBRENNIKOVA, K.L.; TERNOVSKIY, V.A.; Frinimali  
uchastiye: SHAROV, P.M.; NOVIKOV, L.Z.; LUR'YE, E.I.; PIS'MEN,  
M.K.; KARABIN, A.I. [deceased]; KOSTIN, L.I.; FROLOV, V.P.;  
MEDVEDEV, F.V.; GELIMKHANOV, S.G.; BONDAR', V.G.; TIMOFEEV,  
P.I.; MININA, L.V.; ARBEKOV, F.F.; NIKOLAYEV, N.I.; YAROSLAV,  
T.Ye.; NUDEL'MAN, V.G.

Gasification of mazut under pressure in a steam-oxygen blast.  
(MIRA 17:12)  
Gaz. prom. 9 no.11:49-50 '64.

LUR'YE, B. V.

21792 LUR'YE, B. V. Ekonomiya elektroenergii v podzemno-transportnykh mekhanizmakh. Sbornik materialov nauch.-tekhn. sessii po ekonomii elektroenergii. (Okt. 1947, g.) Vyp. 1. M., 1949, s. 112-23. - bibliogr: 5 nazv.

SO: Letopis' zhurnal'nykh Statey, No. 29, Moskva, 1949

MAKARENKO, G.A.; GRIGOR'YEVA, V.G.; SHEYNINA, T.I., red.;  
LUR'YE, B.V., red.

[Recent developments in agricultural research and  
practice; an annotated bibliography] Novoe v sel'sko-  
khoziaistvennoi nauke i praktike; annotirovannyi uka-  
zatel' literatury. Moskva, Izd-vo "Kolos," 1964. 131 p.  
(MIRA 18:2)

l. Moscow. TSentral'naya nauchnaya sel'skokhozyaystven-  
naya biblioteka.

93240

S/194/61/000/008/087/092  
D261/D304

AUTHOR: Lur'ye, S.Ya.

TITLE: Maximum stability in time of active negative resistance

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,  
no. 8, 1961, 16, abstract 8 K106 (Tr. uchebn. in-tov  
svyazi. M.-vo svyazi SSSR, 1960, no. 3, 111-118)

TEXT: A description is given of how to obtain, by using feedback systems (FS), active dipoles (AD) producing in a given frequency range active negative resistances (ANR). The maximum possible value of feedback is evaluated for circuits which have to produce a given ANR. The maximum possible stability of ANR in time, as determined by the maximum possible feedback, is limited both by the amplifier properties and by the o.c. and s.c. stability of AD. The possibility has been investigated of realization of ANR in the form of an AD, with and without zeros and poles in the right p-half- VB

Card 1/2

Maximum stability...

S/194/61/000/008/087/092  
D201/D504

plate. 3 references. Abstracter's note: Complete translation J

VB

Card 2/2

93240 (2301, 2901, 2902, 2104)

20406

S/109/60/005/012/004/035  
E192/E482

AUTHORS: Zelyakh, E.V. and Lur'ye, B.Ya.

TITLE: A Method for the Physical Realization of an Ideal Power Converter

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol.5, No.12,  
pp.1895-1901

TEXT: The conception of an ideal power converter as a circuit element was introduced by Zelyakh in 1957 (Ref.1). It is a two-port with matrix

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} = \begin{bmatrix} \frac{1}{K} & 0 \\ 0 & \frac{1}{K} \end{bmatrix}; \quad (a)$$

Connected in cascade with other two-ports it increases the signal by a factor of K in one direction and by 1/K in the other, independently of the input impedances of the two-ports on either side. Its input impedance is identical with that of the load connected across the output terminals. It was shown (Ref.2) that Card 1/5

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S/109/60/005/012/004/035  
E192/E482

A Method for the Physical ...

any irreversible two-port can be reduced to a reversible two-port in cascade with an ideal power converter. The physical realization of ideal power converters is the subject of the present article. Analysis shows that the circuit of Fig.1 will behave as an ideal power converter under certain conditions. The matrix of Fig.1b is

$$[a] = \begin{bmatrix} \frac{1}{\mu-s} & 0 \\ 0 & \frac{s}{\mu-s} \end{bmatrix}. \quad (b)$$

With  $s = 1$  this is the matrix of the ideal power converter with  $\mu - 1 = K$ . With  $s \neq 1$  the circuit is equivalent to the cascade connection of an ideal converter and an ideal transformer. For  $K$  to be a real quantity, it is necessary that  $\mu$ ,  $Z_1$ ,  $sZ_1$ ,  $Z_2$  and  $Z_3$  be real and positive. Stable and real  $\mu$  over a working bandwidth requires the use of a negative feedback amplifier. If the amplifier is not rigorously unilateral, back-transmission of the signal from the output to the input terminals may be compensated by adjustment of  $Z_2$  and  $Z_3$ . A pentode circuit Card 2/5

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E192/E482

A Method for the Physical ...

modelling Fig.1b is given in Fig.3. The ratio of input to output impedances is very close to unity below  $1 M\Omega$ . The authors list several applications in measurement techniques. The most interesting application is as a negative-resistance amplifier (Fig.4 and 5). Bridging the converter (Fig.4) gives a short-circuit-stable negative-resistance amplifier, putting the impedance in the common lead (Fig.5) gives an open-circuit-stable amplifier. The article closes with stability considerations. There are 5 figures, 1 table and 5 references: 4 Soviet and 1 non-Soviet.

SUBMITTED: May 7, 1960

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E192/E482

A Method for the Physical ...

Fig.1.

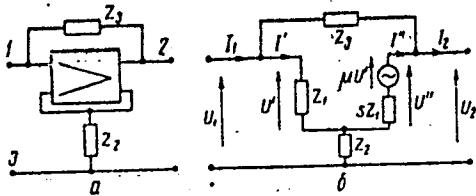


Рис. 1. Схема, при определенных условиях эквивалентная идеальному преобразователю мощности

Fig.3.

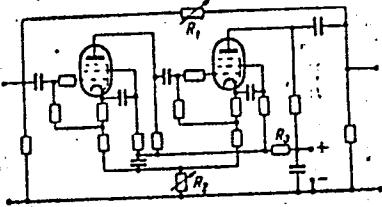


Рис. 3. Принципиальная схема устройства, обладающего свойствами идеального преобразователя мощности

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A Method for the Physical ...

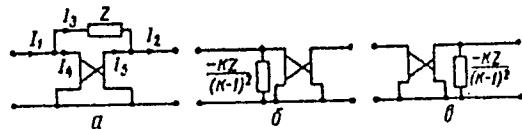


Fig.4.

Рис. 4. Идеальный преобразователь мощности как конвертор отрицательных сопротивлений, устойчивых при коротком замыкании

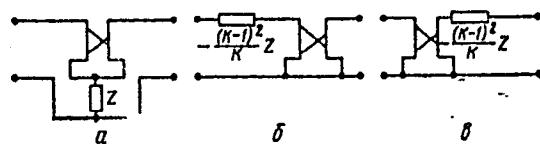


Fig.5.

Рис. 5. Идеальный преобразователь мощности как конвертор отрицательных сопротивлений, устойчивых при холостом ходе

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84370  
S/106/60/000/006/003/013  
A169/A026

9,3240 (1143, 1154, 1331)

AUTHOR: Lur'ye, B.Ya.

TITLE: The Stability of the Modulus of Amplification of a Feedback Amplifier

PERIODICAL: Elektrosvyaz', 1960,<sup>14</sup> No. 6, pp. 14 - 17

TEXT: The author discusses the disagreement between the formula and the verbal definition of the quantity of sensitivity of a feedback amplifier, which is found in the well-known book by G. Bode (Ref. 1). Here, the sensitivity is defined as "the ratio of the percentage change of the value  $\mu$  to the percentage change of  $\mu_B$ , originating in this case". The author states that complex values have been used in the formula, while their moduli have been used in the verbal definition. Bode further holds that a flat frequency characteristic T is best within the limits of the working range. In the author's opinion, a flat frequency characteristic is not the optimum solution for obtaining a high degree of stability of the amplification modulus  $\mu_B$  at an instability of the value  $\mu$ . He introduces the conception of the modulus of sensitivity  $S_M$ , which determines the stability modulus of a feedback amplifier. He investigates the connection be-

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84370

S/106/60/000/006/003/013  
A169/A026

The Stability of the Modulus of Amplification of a Feedback Amplifier

tween  $S_m$ , the return ratio T (vozvratnoye otnosheniye) and determines the form of the frequency characteristic T, which provides the highest modulus of sensitivity in the working range. There are 3 figures and 1 Soviet reference.

SUBMITTED: March 26, 1959

Card 2/2

L 22219-65 EWT(1)/EWA(h)/ Peb ASDA-5/SSD/RAEM(s)/ESDC/ESDG(s)

ACCESSION NR: AF5001371

S/0106/64/000/012/0035/0041

AUTHOR: Lur'ye, B. Ya.

TITLE: Feedback in a system with parallel amplification channels B

SOURCE: Elektrosvyaz', no. 12, 1964, 35-41

TOPIC TAGS: feedback amplifier, feedback theory

ABSTRACT: A class of systems with multichannel feedbacks is considered in which the depth of the feedback can exceed that of a single-channel feedback by many times. A method is developed of calculating a feedback system which contains a number of parallel amplification channels with a view toward obtaining the deepest possible feedback. By generalizing a well-known definition of an absolutely stable single-channel-feedback system, a new definition is formulated for the absolute stability of a system with a specified sequence of parameters (to anticipate the possibility of sequential overloading of individual amplification

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ACCESSION NR: AP5001371

channels). As in the case of a single-channel feedback, the linearity, overall-amplification stability, and other performance indices improve with the greater depth of the feedback in a parallel-amplification-channel system. It is proven that the overall feedback depth, in logarithmic units, may reach the sum of attainable depths in individual channels. A diagram for easily finding the logarithm of a sum of two quantities whose individual logarithms are known is supplied. Orig. art has: 6 figures and 4 formulas. [03]

ASSOCIATION: none

SUBMITTED: 15 May 64 ENCL: 00 SUB CODE: EC

NO REF Sov: 003 OTHER: 003 ATD PRESS: 3169

Card 2/2

LUR'YE, B.Ya.

Stability conditions of bilateral amplifiers on communication lines  
with varying terminal loads. Elektrosviaz' 14 no.11:40-47 II '60.

(MIRA 13:12)

(Telephone, Automatic)

(Amplifiers (Electronics))

S/194/62/000/003/057/066  
D271/D301

9,3230

AUTHOR:

Lur'ye, B. Ya.

TITLE:

The realization of a two-terminal network with passive  
immittance and low noise level by means of a feedback  
system

PERIODICAL:

Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 3, 1962, abstract 3-7-14b (Tr. Nauchno.tekhn. kon-  
ferentsii. Leningr. elektrotekhn. in-ta svyazi, no. 3,  
L., 1961, 31-36)

TEXT: It is known that the e.m.f. of thermal noise at the termin-  
als of a passive two-terminal network, with an impedance  $Z = R + iX$ ,  
at temperature T, is  $\bar{E} = \sqrt{KT\Delta fR}$ , or, in a dual representation,  
thermal noise current is  $\bar{I} = \sqrt{KT\Delta fG}$  when the admittance of the net-  
work is  $Y = G + iB$ . By making use of active elements it is possible  
to realize a network with passive immittance which differs from a  
passive network by having in a certain frequency band a consider-

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The realization of ...

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D271/D301

ably lower thermal noise, notwithstanding that all components of the circuit have the same, and sometimes much higher temperature  $T$  (e.g. the cathode of an electron tube). It is convenient to appraise noise of such networks by the magnitude of the equivalent absolute temperature  $T'$ , or by a coefficient  $\gamma$

$$\gamma = \frac{T}{T'} = \frac{\frac{E^2}{2} R}{\frac{I^2}{2} G} = \frac{E^2}{I^2} \frac{R}{G}$$

In an infinitely wide frequency band  $\gamma$  cannot differ by a finite value from unity; this is, however, possible in a limited frequency band. Conditions of realizability of a network of this type, in a feedback system, are considered. Passive real resistances in the feedback loop and inherent noise of the amplifier (shot noise, etc.) are the source of noise in the discussed system. Analysis of feedback systems shows that when bridge feedback is used (voltage and current feedback) it is possible to have  $\gamma \ll 1$ , in a certain frequency band.

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The realization of ...

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D271/D301

quency band. In order to obtain the smallest possible values of  $\gamma$ ,  
noisy real resistances should be eliminated as far as possible,  
and for this purpose it is of advantage to use a two-winding trans-  
former to supply bridge feedback. Values of  $\gamma = 0.13$  were obtained  
in experiments but they are not the smallest possible. 3 referen-  
ces. [Abstracter's note: Complete translation.]

ix

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LUR'YE, B.Ya.

Zeroes of the sum of two immittances in the right-hand  
halfplane. Elektrosviaz' 16 no.9:66-69 S '62. (MIRA 15:9)  
(Electric networks)

LUR'YE, Boris Yakovlevich; ABOLITS, I.A., otv. red.; OBRAZTSOVA,  
Ye.A., red.

[Design of transistor amplifiers with direct feedback]  
Projektirovanie tranzistornykh usilitelei s glubokoi ob-  
ratnoi sviaz'iu. Moskva, Sviaz', 1965. 149 p.  
(MIRA 18:5)

L 1583-66 EWT(1)/EWA(h)

AM5017156

BOOK EXPLOITATION

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621.375.4.001.12

7  
BHLur'ye, Boris Yakovlevich

Designing transistor amplifiers with heavy feedback (Proyektirovaniye tranzistornykh usiliteley s glubokoy obratnoy svyaz'yu) Moscow, Izd-vo "Svyaz", 1965. 149 p. illus., biblio. 12,350 copies printed.

TOPIC TAGS: amplifier, transistor amplifier, transistor amplifier feedback, amplifier design, amplifier stability, heavy feedback, linear feedback system, single channel feedback, multichannel feedback, parallel feedback circuit, audio frequency amplifier

PURPOSE AND COVERAGE: The book is intended for engineers concerned with designing high-quality transistor amplifiers, particularly for long-distance communication systems, and for students at communication schools of higher education. It may also be useful for technicians concerned with automatic regulation systems (servomechanisms). It is assumed that the reader is familiar with basic transistor technology. The book discusses the theory of heavy-feedback transistor amplifiers in relation to electron-tube amplifiers.

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ers and emphasizes the use of mathematical apparatus to solve amplifier design problems. Part of the book also covers the general theory of linear feedback systems.

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SUB CODE: EC

SUBMITTED: 17Feb65 NO REF Sov: 032

OTHER: 015

Card 4/4  
dg

LUR'YE, D., inzh.

Mechanization of granaries in Turkmenistan. Muk.-elev.prom.  
25 no.7:17 J1 '59. (MIRA 12:11)

1. Upravleniye khleboproduktov pri Sovete Ministrov Turkmeneskoy  
SSR. (Turkmenistan--Grain-handling machinery)

✓ Apparatus for modifying iron in the forehearth. *+5 2*  
Miroshnichenko, D. A., Iu. F. and L. I. Levontin, U.S.  
S.R. 103,783, May 25, 1957. The amount of modifier fed  
into the forehearth by a metering device is controlled by the  
level of the melt. M. Hasch

LUR'YE, D.A.

MIROSHNICHENKO, G.K., dots.; VASIL'YEV, A.G., kand.tekhn.nauk;  
SHCHERRAKOV, V.I., inzh.; LUR'YE, D.A., inzh.

Automatizing the process of cupola charging and level control  
by means of radioactive isotopes. Lit.proizv. no.8:14-15 Ag '57.  
(MIRA 10:10)

(Cupola furnaces)  
(Gamma rays--Industrial applications)

LUR'YE, D. A.

AKSMAN, N.M.; VILENSKIY, L.I.; GORBUNOV, N.G.; GUFSKIY, V.N.; GURVICH, M.D.; LATYSHEV, Yu.M.; LEVONTIN, L.I.; LIVSHITS, T.G.; LOGINOVA, M.K.; LUR'YE, D.A.; LYANDRES, G.D.; MIROSHNICHENKO, G.K.; MOGILEVSKIY, B.Ya.; NEMKOVSKIY, M.I.; ORLEANSKIY, Ya.P.; SAVITSKIY, A.N.; SIMMA, S.F.; SURKOV, G.Z.; SHMYGUL', B.P.; SHUBIN, V.P.; DONSKOY, Ye.Ye., red.izd-va; KAL'NITSKIY, R.Ya., red.izd-va; ZAMAKHOVSKIY, L.S., tekhn.red.

[Mechanization and automation in the machinery industry] Mekhanizatsiya i avtomatizatsiya v stankostroenii. Khar'kov, Khar'kovskoe obl.izd-vo, 1958. 119 p. (MIRA 13:2)

1. Kharkov. Institut "Giprostanok." 2. Direktor instituta "Giprostanok" (for Orleanskiy).

(Machinery industry--Technological innovations)  
(Automation)

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 99 (USSR) SOV/137-59-1-734

AUTHORS: Lur'ye, D. A., Virchenko, V. Ya.

TITLE: Supplying the Industry With CO<sub>2</sub> Gas (Snabzheniye promyshlennosti uglekisllym gazom)

PERIODICAL: Byul. tekhn. ekon. inform. Sov. nar. kh-va Khar'kovsk. ekon. adm. r-na, 1958, Nr 1, pp 16-20

ABSTRACT: It is pointed out that the production of CO<sub>2</sub> may be increased by means of creating installations for the utilization of waste gases (G) generated during fermentation processes in alcohol, beer, decomposition of fats, etc.; waste G's of certain chemical industries (fuel-G refining, NH<sub>3</sub> synthesis, oil refining) may also be utilized. Installations for the utilization of waste G's are planned in Lisichansk, Chirchik, Rustavi, and other cities. The cost of the CO<sub>2</sub> supplied by these installations will amount to 275-300 rubles per ton. Shipped-in CO<sub>2</sub> may be cheaper than the locally produced variety, provided the dry ice is supplied in containers. Suitable wooden containers, the losses in which constitute 2.5 - 4% per day, had been developed by the All-Union Low-temperature Institute.

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Supplying the Industry With CO<sub>2</sub> Gas

SOV/137-59-1-734

CO<sub>2</sub> may also be obtained from fuel G's of local industries by the absorption-desorption method. This method involves the expenditure of chemical reagents, electrical energy, water, and steam. The cost of the CO<sub>2</sub> thus obtained is 650-850 rubles per ton. In the case of small installations, producer (combustion of solid or gaseous fuel in a stream of O<sub>2</sub>) and sulfuric-acid (chemical reaction of CaCO<sub>3</sub> with H<sub>2</sub>SO<sub>4</sub>) methods may be employed. The cost of CO<sub>2</sub> produced by these methods amounts to 935 and 750 rubles per ton, respectively.

A. M.

Card 2/2

LUR'YE, D. A.

AUTHOR: Ginzburg, Z.L., Engineer, 128-58-4-15/18

TITLE: Scientific-Technical Session on Progressive Technology of Casting Molds (Nauchno-tehnicheskaya sessiya po progressivnoy tekhnologii liteynoy formy)

PERIODICAL: Liteynoye Proizvodstvo, 1958, No. 4, pp 28-30 (USSR)

ABSTRACT: A conference on the technology of casting molds - organized by the NTOMASHPROM of the Khar'kov Oblast' - convened in Khar'kov on 14-16 November 1957. More than 200 delegates from plants, research institutes, vuzes and other organizations of the Khar'kov and other regions participated. Problems of earth-mold casting were discussed. A total of 24 reports were delivered on hardening and exothermic mixes and the mechanized processes in USSR and abroad. B.A. Noskov and V.I. Ryzhkov (KhPI) gave information on molding sand and clay available in the Khar'kov economic region. The following reports were also heard: V.V.Ryabova - on the use of carbon dioxide, at NKMZ, for chemical strengthening of molds, which has reduced the drying period and cut the consumption of generator gas, improved the quality of castings, and nearly

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128-58-4-15/18  
Scientific-Technical Session on Progressive Technology of Casting Molds

doubled the production of molds; N.Kh. Ivanov - on the use of the same quick-hardening mixes, with cold carbon dioxide, at the Slavyanskiy mashinostroitel'nyy zavod (Slavyansk Machinebuilding Plant); Engineer D.A. Lur'ye (Giprostanok) - on modern methods and an installation for production of carbon dioxide; Engineer Ye.P. Tolmachev of the Voroshilovgradskiy teplovozostroitel'nyy zavod (Voroshilovgrad Diesel-Locomotive Plant) - "on experience with molding sand milled in a special vibration mill, which solves the problem of obtaining castings with a clean surface not only with shell molds, but also with conventional molding methods;" A.Ya. Izmalkov - "on the oil-less binder "P" used at the plant "Serp i Molot"; A.I. Veynik - on the theory of forced cooling of castings and the experience in this method at the Novo-Kramatorskiy i Minskiy stankostroitel'nyy zavodov (Novo-Kramatorsk and Minsk Machine Tool Plants) which developed this method in the production of large castings;" I.V. Ryzhov - "on the physico-chemical nature of sand crust (on castings) and the ways of eliminating this crust by producing a de-oxidizing atmosphere between the mold and the metal, casting in vacuum, or crystallization-preventive additions to water glass;" P.G. Novikov (of TsNIITMASH) - "on

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128-58-4-15/16

Scientific-Technical Session on Progressive Technology of Casting Molds

results of the collective work of TsNIITMASH and NKMZ on technological problems of the production of large molds, and the new method of forced or controlled cooling of castings in the ground, as well as on the experiments with a system of universally applicable cast parts; B.K. Dymshin of the Khar'kovskiy turbinnyy zavod (Khar'kov Turbine Plant) and Engineer I.Ye. Gabey (NKMZ) - on exothermic mixes for heating the feeding heads of steel and cast iron castings; M.L. Turovskiy - on investigation of internal stresses at the Khar'kovskiy zavod transportnogo mashinostroyeniya (Khar'kov Plant of Transport Machines); V.S. Ladnov - on mechanized casting into shell molds by shot-strewing the mold boxes, being introduced at the same transport machine plant; K.I. Kostinenko - on the organization of boxless molding at the plant Rostsel'mash; N.A. Gerasimov of the Kremenchugskiy zavod dorozhnykh mashin (Kremenchug Road Machine Plant) - on casting parts in molds produced under pressure up to 100 kg/cm<sup>2</sup>, without mold boxes, which nearly completely eliminates the necessity of machining the castings and greatly reduces the consumption of foundry materials and metal; A.M. Petrichenko of the Khar'kovskiy

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Scientific-Technical Session on Progressive Technology of Casting Molds

avtodorozhnyy institut (Khar'kov Auto-Road Institute) - on the experience of the Chinese Democratic Republic with semi-permanent molds for thin-wall castings; Ye.A. Sukhodol'skaya of the Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnical Institute) - on some peculiarities of foundry technology in China; V.D. Bezuglov of the Khar'kovskiy zavod zubovrachebnykh materialov (Khar'kov Plant of Dentistry Materials) - on self-hardening plastics "AST" which is readily machineable, well suited for decorative correction of surface faults on metal castings, and also for making light core boxes, press-molds for wax patterns, etc. The conference recommended that the Khar'kov Sovnarkhoz organize the exploitation of molding sands and clays in the region and a centralized production of carbon dioxide. The conference pointed out the necessity of extensive use of quick-drying mold mixes, forced cooling of castings, exothermic mixes for heating the feeding heads, and the necessity to introduce the shell-mold and the chill-casting methods. The method of making molds

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128-58-4-15/18

Scientific-Technical Session on Progressive Technology of Casting Molds

under high pressure was recommended for use. The importance of the Khar'kov Dentistry Materials Plant and KhTZ work with self-hardening plastics for foundry use was emphasized.

AVAILABLE: Library of Congress  
Card 5/5      1. Castings-Scientific reports

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001030910020-5

JUR'YE, D.A.

Equipment for carbon dioxide production. Biul.tekh.-ekon.inform.  
no. 11:22-24 '58. (MIRA 11:12)  
(Carbon dioxide)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001030910020-5"

*Facsimile, R.A.*

PHASE I BOOK EXPLOITATION

SOV/4445

Ivanov, N. Kh., B.S. Kalinin, D.A. Lur'ye, L.I. Levontin, G.K. Miroshnichenko,  
B.P. Shmygul', and N.N. Sherlaimov

Avtomatischeeskaya ustanovka dlya proizvodstva CO<sub>2</sub>; sbornik rabochikh chertezhey  
(Automatic Plant for the Production of CO<sub>2</sub>; <sup>2</sup> Collection of Working Drawings)  
Moscow, Mashgiz, 1960. 65 sheets. 3,000 copies printed.

Reviewer: A.A. Gorshkov, Corresponding Member, Academy of Sciences UkrSSR, Doctor  
of Technical Sciences, Professor; Chief Ed. (Southern Division, Mashgiz):  
V.K. Serdyuk, Engineer; Ed. (Inside book): M.S. Soroka; Ed. (Title page):  
Ya. P. Orleanskiy.

PURPOSE: This book is intended for technical personnel in foundry shops.

COVERAGE: The book contains 65 drawings of an automatic installation for the  
production of carbon dioxide. A brief description is also given of basic  
methods of CO<sub>2</sub> production for general industrial uses and for the food industry.

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Automatic Plant for the Production of CO<sub>2</sub> (Cont.) SOV/4445

The installation was exhibited at the All-Union Industrial Exposition in 1958.  
No personalities are mentioned. There are no references.

TABLE OF CONTENTS: None given. The book is divided as follows:

Foreword	3
Modern Methods of CO <sub>2</sub> Production	4
Principle of Operation of the Automatic Installation for the Production of CO <sub>2</sub>	7
Calculations for the Installation	7
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Basic Assemblies of the Automatic Installation	9
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ORLEANSKIY, Ya.P.; LUR'YE, D.A.; GINZBURG, Z.L.; RYZHIK, Z.M., inzh.,  
red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Automatic plant producing carbon dioxide for welding] Avtoma-  
ticheskaiia stantsiiia vyrabotki uglekislogo gaza dlia svarki.  
Leningrad, 1961. 28 p. (Leningradskii dom nauchno-tekhnicheskoi  
propagandy. Obmen peredovym opyтом. Seriia: Svarka, rezka i  
paika metalla, no.8) (MIRA 15:3)  
(Carbon dioxide) (Welding)

LOGINOV, Mariya Kapitonovna; LUR'YE, Dzhan Aliyevich; NEMKOVSKIY,  
Mikhail Il'ich; ORLEANSKIY, Yakov Pavlovich; SAVITSKIY, Aron  
Yakovlevich; SHUBIN, Vladimir Petrovich; MYLKO, M.N., kand.  
tekhn. nauk, retsenzent; POLYAKOVA, D.I., red.; BYKOVSKIY,  
A.I., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Album of equipment for the mechanization of foundries] Al'bum  
sredstv mekhanizatsii liteinykh tsakhov. [By] M.K.Loginova i  
dr. Moskva, Mashgiz, 1962. 131 p. (MIRA 15:10)  
(Foundries-Equipment and supplies)

LUR<sup>t</sup>YE, D.A.

Opening and closing mechanisms for cupola bottoms. Mashinostroenie  
no. 3:113-114 My-Je '62. (MIRA 15:7)  
(Cupola furnaces)

LUR'YE, D.A.; GINZBURG, Z.L.

Expandable metal core boxes. Lit. proizv. no. 7:4 Jl 164.  
(MIRA 18:4)

GONCHARENKO, V.K.; LUR'YE, D.A.; DUDNIK, V.M.

Problems of the specialized production of molding materials  
in the Ukraine. Lit. proizv. no.11;7-8 N '64. (MIRA 18:8)

AUTHORS: Dvuglova, L. Ya., Lur'ye, E. G., Radyukevich, O. V., Ratner,  
S. B., Farberova, I. I.

TITLE: Wear (abrasion) of plastics and methods for its evaluation

PERIODICAL: Plasticheskiye massy, no. 1, 1962, 60-66

S/191/62/000/001/006/006  
B139/B110

TEXT: Specimens of plastics were tested without lubrication at low speeds and loads, either with monocrorundum abrasive paper M150 (M 150), FOCT 344-57 (GOST 344-57) or with steel-wire cloth FOCT 3826-47 (GOST 3826-47) on Grasselli machines. The nondimensional wear coefficient  $v$  for plastics does not depend on the cross section of the specimens. The exchange of abrasive paper and wire cloth affects neither wear nor the spread of test results, which was estimated from the mean square deviation  $\sigma$  and from the variation coefficient  $\delta = \frac{\sigma}{v} \cdot 100\%$ . Since the spread increases during the abrasion of small masses,  $\delta \leq 5\%$  was strived for. This was achieved by abrading 20-30 mg of mass in the test with abrasive paper, and 10-20 mg

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Wear (abrasion) of plastics ...

in the test with wire cloth. Values obtained for the wear of various plastics, rubbers, and wood in reference to the wear of organic glass are presented. In the abrasive paper test with a load of  $1 \text{ kg/cm}^2$ ,  $v$  is  $3.7 \text{ mm}^3/\text{m} \cdot \text{cm}$  =  $3.7 \cdot 10^{-5}$  for organic glass. This value was assumed to be 100. In the wire cloth test,  $v$  is  $1.3 \cdot 10^{-7}$ ; this value was assumed to be 1. The abrasion coefficient  $\alpha$  shows the extent of increase of the wear coefficient  $v$  with an increase of the standard pressure  $P$  according to the equation  $v = K \cdot P^\alpha$  (2). For plastics,  $\alpha$  was in most cases 1-2, since the wear on the wire cloth is caused not only by friction but also by the cutting effect. The nature of abrasion on the wire cloth is similar to that on a smooth metal surface. The wear resistance of plastics during abrasion on surfaces of varying roughness may thus be compared. Wear may be considered a fatigue process of the upper material layers owing to repeated deformation caused by the elevations of the grinding body, and can be determined from the number  $n$  of fatigue cycles. In the equation  $v = i \frac{P}{H}$  (3) ( $H$  = hardness), according to I. V. Kragel'skiy, the wear  $i$  is inversely proportional to  $n$ . For determining the wear, M. M. Reznikovskiy derived the expression

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Wear (abrasion) of plastics ...

S/191/62/000/001/006/006  
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$v = \text{const } p^{(b+2)/3}$ , where  $b$  expresses the slope of the fatigue curve by Wehler according to the relation  $(\sigma_0/\sigma)^b = n$ .  $\sigma_0$  = strength under single loading.  $\sigma$  = amplitude value of repeated dynamic stresses.  $b$  can thus be determined as the tangent of the slope of the curves  $\log n = f[\log(\sigma_0/\sigma)]$ . Owing to the destruction of molecules, the molecular weight of the wear product is lower than that of the initial material. The results were well reproducible. While for abrasion with metal screen a qualitative correlation with the fatigue strength was found, a correlation with the impact strength exists for abrasion with sandpaper. There are 4 figures, 2 tables, and 31 references: 24 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: S. V. Ratner, V. E. Gool, G. S. Klitenik, Wear, 2, No. 2, 127 (1958); ASTM Spec D 1044-56; ASTM Standards on Plastics, ASTM D 1242, 56 (1957); J. Burns, E. Story, Ind. Eng. Chem., 44, No. 9, 895, (1952). ✓

Card 3/3

ARKHANGORODSKIY, L.A.; BUKSHTEYN, Ya.A.; VOROB'YEV, S.V.; GAYENKO, P.A.; DOLGOV, Ye.N.; ZHIGLIN, A.A.; ZUBOVSKIY, G.P.; ISHKOV, I.G.; KRYZHANOVSKAYA, G.L.; LISTRATOV, A.A.; LUR'YE, R.I.; MOROZOV, N.P.; OSTROZETSER, A.S.; PAVLOV, N.A.; PETROV, L.M.; POPOV, V.N.; TARTAKOVSKIY, I.A.; TAUBE, D.N.; KHANIN, L.T.; SHAPIRO, TS.S.; SHVAYTSBURG, B.A.; SHEVTSOV, V.D.; DENISENKOVA, L.M., red.

[Assembler's handbook on performing mechanical assembly and special work on grain elevators and grain processing enterprises] Spravochnik montazhnika; po proizvodstvu mekhano-montazhnykh i spetsial'nykh rabot na elevatorakh i predpriyatiakh po pererabotke zerna. Moskva, TSentr. in-t nauchno-tekhn. informatsii i tekhniko-ekon. issl., 1963. 519 p.  
(MIRA 17:7)

LUR'YE, E.L.; YASINOVSKAYA, F.P.

Epilepsy with conditioned reflex seizures. Zhur.nevr. i psikh.  
54 no.7:540-542 Jl '54. (MLRA 7:7)

1. Iz kliniki nervnykh bolezney Tsentral'nogo instituta usovershen-  
stvovaniya vrachey.

(REFLEX, CONDITIONED,  
\*conditioned seizures in epilepsy)  
(EPILEPSY, physiology,  
\*conditioned reflex seizures)

BEYN, E.S.; ZHIRMUNSKAYA, Ye.A.; LUR'YE, E.L.

Some problems in consciousness disorders in cerebral apoplexy;  
an electroencephalographic study. Zhur. nevr. i psikh. 64  
no.2:191-199 '64. (MIRA 17:5)

1. Institut nevrologii (direktor - prof. N.V. Konovalov)  
AMN SSSR, Moskva.

LUR'YE, F.A., arkitektor

Redesigning projects and new types of pig sties. Sbor. nauch.  
soob. NII sel'stroia no. 3:26-35 '60. (MIRA 15:6)  
(Swine houses and equipment)

SHTAFINSKAYA, A.Ye.; LUR'YE, F.M.

Investigating stress distribution in rocks during flat mining operations. Sbor.nauch.rab.stud. LGI no.2:103-111 '57.  
(MIRA 13:4)

1. Leningradskiy ordenov Lenina i Trudovogo Krasnogo Znameni gornyy institut im. G.V.Plekhanova. Predstavlenec prof. B.V. Bokiyem.

(Faults(Geology)) (Mining engineering)

B. E. LUR'YE, G. B.

Mashine

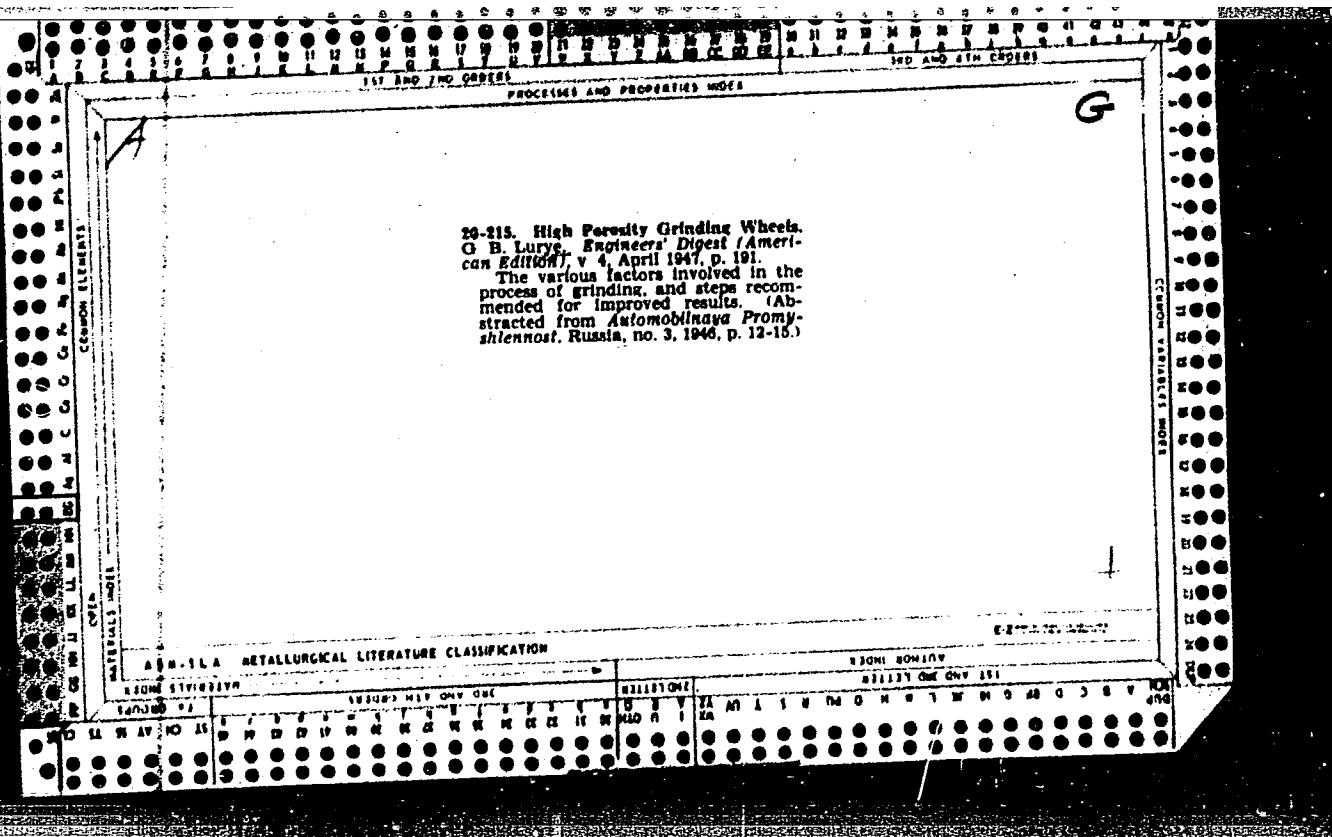
927. ABRASIVE WHEELS OF HIGH POROSITY.—*G. B. Lurye (Automobil. Prom. (Russia), No. 3, 12, 1946).* The advantages are noted of abrasive wheels of high porosity, operating at high speed. A high grinding speed makes it possible to use softer abrasives, while high porosity enables a coarser grit to be used and reduces centrifugal stresses. Using a ceramic bond, wheels of this type can be made having a bulk density of 1.90-1.95; they are fired at 900° C. instead of the usual 1,300°-1,350° C. The consumption of abrasive grit is claimed to be reduced by 20% and the power consumption by almost 60%.

LUR'YE, G. B., Professor

"The Question concerning Drive of High-speed Grinding Spindles," Stanki I Instrument,  
17, No. 6, 1946.

Stalin Prize Winner

BR-52059019



LUR'YE, G.B.

[Roller bearings production processes] Tekhnologija proizvodstva podshipnikov  
kacheniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1949.  
(MIRA 6:8)  
1447 p.

(Roller bearings)

LUR'YE, G. B., BOGATYREV, I. S.

Machine Tools

Device for measuring sturdiness, Stan. i instr., 23, No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952., Unclassified.

LUR'YE, G.B.

MASLOV, D.P.; SASOV, V.V.; NIZHANSKIY, P.G.; IEM'YANYUK, F.S., professor,  
retsenszent; LUR'YE, G.B., professor, redaktor.

[Technology of automobile and tractor construction] Tekhnologija  
avtotraktorostroenija. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
stroit. i sudostroit. lit-ry, 1953. 628 p. (MLRA 7:6)  
(Automobiles--Design and construction) (Tractors--Design and  
construction)

LUR'YE, G.B., professor, laureat Stalinskoy premii.

Some problems of the working process theory in circular grinding.  
Vest.mash.34 no.5:44-50 My '54. (MIRA 7:6)  
(Grinding and polishing)

LUR'YE, G. B.

123-1-737

Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957,  
Nr 1, p. 111 (USSR)

AUTHOR:

Lur'ye, G. B.

TITLE:

On the Problem of Correcting Initial Errors in Cylindrical Grinding (K voprosu ob ispravlenii iskhodnykh pogreshnostey pri kruglom shlifovanii)

PERIODICAL:

Sbornik: Tchnost' izgotovleniya sharikovykh i rolikovykh podshipnikov na avtomat. liniyakh. Moscow, AN SSSR, 1955, pp. 119-136

ABSTRACT:

The process of metal removal in cylindrical grinding - is divided on 3 basic stages: 1) the cutting-in (unsettled process), 2) the settled process of metal removal, and 3) the backing-out (unstabilized process). For each of these stages the degree of the tightness of the system is different, consequently, the rule for correction of errors is not identical. The analytical relationships for determining the direction of error in each grinding stage, and also for the establishment of

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On the Problem of Correcting Initial Errors in Cylindrical Grinding  
(Cont.)

123-1-737

a guaranteed allowance and the minimum time required for obtaining the permissible error are given. The degree of correction of the error is determined by the technique of processing, the rigidity of the system, and the kinematics of the cutting-in and backing-out stages. The relations discovered permit determining by calculation the most favorable method of the grinding technique. See also Referativnyy Zhurnal, Mashinostroyeniye, 1956, Nr 23, 32233

Card 2/2

B.I.M.

YAKOBSON, Mikhail Osipovich, doktor tekhnicheskikh nauk, professor; LUR'YE,  
G.B., professor, retsenzent; KARATYGIN, A.M., kandidat tekhnicheskikh nauk, redaktor; MODEL', B.I., tekhnicheskiy redaktor.

[Roughness, hardness, and locked-up stresses in machining] Sherokhovatost', naklep i ostatechnye napriazheniya pri mekhanicheskoi obrabotke. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 291 p. (MLRA 9:6)  
(Metallography) (Metalworking machinery)

LUR'YE, Gerts Borisovich; FREYDBERG, V.Z., kand. tekhn.nauk, nauchnyy red.;  
ZAV'YALOV, B.G., red.; SAMUYLOVA, A.G., tekhn.red.

[Advanced grinding technology] Progressivnaya tekhnologiya shlifovaniia. Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1957.  
125 p. (Grinding and polishing)

LUR'YE, G.B.

GOKUN, Vladimir Borisovich; LUR'YE, G.B., professor, doktor tekhnicheskikh nauk, retsenzent; KUKOBA, N.A., inzhener, redaktor; GUL'KO, M.M., inzhener, redaktor; SROKA, M.S., redaktor izdatel'stva; RUDENSKIY, Ya.V., tekhnicheskiy redaktor

[Technological requisites for metal economy; reducing technological waste] Tekhnologicheskie predposylki ekonomii metalla; snizhenie tekhnologicheskikh otkhodov. Kiev, Gos.nauchno-tekhn.izd-vo mashino-stroit.lit-ry, 1957. 181 p.  
(Machinery industry) (MLRA 10:8)

LUR'YE G.B.

TEMCHIN, Grigoriy Il'ich; LUR'YE, G.B., prof., retsenzent; YULIKOV, M.I.,  
kand.tekhn.nauk, red.; MOROZOVA, M.N., red.izdatel'stva;  
MATVEYEVA, Ye.N., tekhn.red.; EL'KIND, V.D., tekhn.red.

[Theory and computation for setting up multiple-tool equipment]  
Teoriia i raschet mnogoinstrumentnykh naladok. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 555 p.  
(MIRA 11:1)  
(Machine tools)

AUTHOR: Lur'ye, G.B.

TITLE: The Choice of Optimum Table Speeds in Grinding Splines. (Vybor optimal'noy skorosti stola pri shlitseshlifovani)

PERIODICAL: Stanki i Instrument, 1957, No. 1, pp 23-25.

ABSTRACT: Some manuals (refs. 1-3, publications of NIITAVTOPROM, and the Motor Vehicle Plant imeni Likhachev ["Avtozavod imeni Likhacheva"]) recommend grinding with the maximum table speed to avoid burns. The total machining time is expressed in a formula, whose maximum is found analytically. The optimum speed is presented in a table. The formula is based on a power law which relates the specific rate of metal removal to the table speed under conditions which just avoid burning the surface. For short spline shafts an increase of the table speed from 4 to 16 m/min increases the machining time by about 20%. Speeds exceeding 10 m/min are worth while in long shafts, or when the duration of one step in dividing is below 0.8 sec. The heat formation process requires further study.

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The article contains 3 graphs, 3 tables and 6 Soviet  
references.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress  
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LUR'YE, G.B.

LUR'YE, G.B.

Regularities of the processes in cylindrical grinding. Trudy Sem. po  
kach. poverkh. no.3:52-75 '57. (MIRA 10:11)  
(Grinding and polishing)

RYBAKOV, Vladimir Alekseyevich; LUR'YE, G.B., red.; SUKHAREVA, R.A.,  
tekhn.red.

[New abrasive materials and instruments] Novye abrazivnye  
materialy i instrumenty. Moskva, Moskovskii dom nauchno-tekhn.  
propagandy, 1958. 21 p. (Perevod opyt proizvodstva. Seria  
"Tekhnologiya mashinostroenija," no.5) (MIRA 12:5)  
(Abrasives)

~~LUR'YE, G.B., prof., red.; GLINER, B.M., inzh.red.; MATVEYEVA, Ye.N., tekhn.  
red.; UVAROVA, A.F., tekhn.red.~~

[Progressive technology in the machinery industry] Progressivnaya  
tekhnologiya mashinostroeniia. Pod red. G.B.Lur'e. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 113 p.  
(MIRA 11:4)  
1. Moscow. Avtomekhanicheskiy institut. Kafedra "Tekhnologiya  
mashinostroyeniya."  
(Machinery industry)

25(1)

PHASE I BOOK EXPLOITATION

SOV/2034

Lur'ye, Gerts Borisovich, Professor

Metody otdelki detaley abrazivnymi instrumentami (Methods of Finishing Machine Parts Using Abrasive Tools) Moscow, Trudrezervizdat, 1958. 122 p. (Series: Novaya tekhnika i peredovyye metody truda) Errata slip inserted. 10,000 copies printed.

Ed.: L. A. Serebrennikova; Tech. Ed.: S. I. Rakov; Scientific Ed.: R. D. Beyzel'man, Engineer.

PURPOSE: This booklet is intended for instructors and foremen of schools for labor reserves. It may be also useful to engineering workers of industrial establishments.

COVERAGE: Methods of surface finishing with abrasive tools are described in this booklet. These methods are claimed to be the latest in the field. The booklet explains the importance of finishing operations for the machine-building and instrument-manufacturing industries. Also described in detail are finishing methods employing various abrasive tools, abrasive

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Methods of Finishing (Cont.)

bars, sticks, and belts. No personalities are mentioned. There are 19 references: 17 Soviet, 1 Czech, and 1 German.

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GO/lsb  
8-11-59

LUR'YE, G.B.

Correcting initial errors in cylindrical grinding. Stan. i instr.  
29 no.7:24-26 J1 '58. (MIRA 11:9)  
(Grinding and polishing)

LUR'YE, G.B., prof.; VALETOV, V.V., inzh., red.; MODEL', B.I., tekhn.red.

[Norms for standardizing operations in grinding; norms for cutting processes and basic time in circular external, internal, centerless, and plane grinding] Normativy dlia normirovaniia rabot pri shlifovanii; normativy rezhimov rezaniia i osnovnogo vremeni pri krugлом naruzhnom, vnutrenнем, beatazentrovom i ploskem shlifovanii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 266 p.

(MIRA 12:12)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye nauchno-issledovatel'skikh i proyektnykh organizatsii. Nauchno-issledovatel'skoye byuro tekhnicheskikh normativov. 2. Sektor skorostnykh metodov obrabotki metallov Nauchno-issledovatel'skogo byuro tekhnicheskikh normativov (for Lur'ye).

(Grinding and polishing)

LUR'YE 6. B.

PLATE I BOOK EXPERTISE 5073688

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnicheskim sifir mashinostroyeniya. Sistemam po kachestvu poverkhnosti

Razchetnoe poverkhnostnoe deistviye mashin. Abromik, A. Tekhnologicheskaya charakteristika. Metodicheskie i prakticheskie rekomendatsii po izucheniju i ustroystvu poverkhnostnoy sljuzha (Surface Quality of Machine Parts, Calculation of Surface Action). No. 1. Processing Factors in Machining of Parts and Instruments. Properties of the Surface Layer. Moscow, Izd-vo Akad. Nauk SSSR, 1959. 299. (Series: Issled. Tekhnicheskaya sljuzha) 3,200 copies printed.

Spanshoring Agency: Akademiya nauk SSSR. Institut mashinostroyeniya.

Editor: Ed.: P.Ye. D'yachenko, Professor. Ed. of Publishing House: G.B. Gorobcov; Tech. Ed.: T.P. Polanova.

PURPOSE: This collection of articles is intended for technical personnel concerned with the quality of surface finishes of machine parts.

CONTENTS: This collection of articles deals with problems of surface roughness and the effect of surface roughness on the wear and strength of machine parts. Among the topics discussed are the development of international standards for surface roughness, the effect of cutting feeds and cutting-tool vibration on the surface roughness of machined parts, the effect of lay direction on the wear of plane friction surfaces, methods and instruments for measuring surface roughness, and the processing of profile forms of finished surfaces. No personalities are mentioned. References follow several of the articles.

Gorobcov, G.P. Quality and Wear of Friction Surfaces 41

Dolgolenko, P.Y. Effect of Lay Direction on the Wear of Plane Friction Parts 49

Shestopalov, I.S. Use of the Cutting Process for Increasing the Fatigue Strength of Machine Parts 55

Chernysh, L.A.; P.Ye. D'yachenko, and O.Ye. Estner. Solid Lubricants in Dry Friction 79

Papkov, D.D. Effect of Surface-Layer Quality on Fatigue Strength 85

Kasyan, M.V. Some Problems of the Formation of the Surface Layer 93

Kur'man, G.B. Theory of the Working Cycle in Grinding as the Basis for Optimal Grinding Quality 98

Slobodchikov, A.I. Effect of Process Factors in Grinding on the Surface Quality of Chrome-plated Parts 116

Martov, A.I. Roughness of Machined Surfaces in Precision and Coarse Turning of Steel 127

Bobryshev, A.P. Instrument for Determining the Surface Roughness of Cutting Tools 137

Poddubnov, M.A. Thermal Phenomena in the Grinding of Quenched and Tempered Steel 142

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Davydov, B.S. Simple Surface-Roughness Indicator 168

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Elenzhev, V.V. "Maliy-Vel" Induction-Type Profilograph-Profilometer 177

Sopronov, A.I. Electric Circuit of the "Maliy-Vel" Profilograph-Profilometer 184

Trutin', V.A. NMI-2 Optomechanical Profilograph 193

Strelchenko, O.A. "Visual" Device for Measuring the Roughness of Ground Surfaces 199

PETROCHENKO, P.F.; SHAPIRO, I.I.; LUR'YE, G.B., prof.; DAYON, A.Ye., inzh.; ZAKHARKIN, V.I., inzh.; MAYOROVA, A.V., inzh.; FELIKSON, N.I., inzh.; FILIPPOVA, L.A., inzh.; GVOZDEVA, A.N., inzh.; MODEL', B.I., tekhn.red.

[General norms for cutting conditions and time in the machinery industry for technical normalization of machining on grinding machines; large-lot and mass production] Obshchemashinostroitel'-nye normativy rezhimov rezeniya i vremeni dlia tekhnicheskogo normirovaniia rabot na shlifoval'nykh stankakh; krupnoseriinoe i massovoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashino-stroit.lit-ry, 1959. 359 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'-noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhe-ner TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko).
3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issled.institute truda (for Shapiro). 4. Sotrudniki TSentral'nogo byuro pro-myshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Dayon, Zekharkin, Mayorova, Felikson, Filippova, Gvozdeva).

(Grinding and polishing)

LUR'YE, G.B.

Theory of the operating cycle in grinding as a base for improving  
the quality of machining. Trudy Sem.po kach.poverkh. no.4:  
98-115 '59. (MIRA 13:6)  
(Grinding and polishing)

PETROCHENKO, P.F.; SHAPIRO, I.I.; LUR'YE, G.B., prof.; DAYON, A.Ye., inzh.;  
ZAKHARKIN, V.I., inzh.; MAYOROVA, A.V., inzh.; FELIKSON, N.I., inzh.;  
FILIPPOVA, L.A., inzh.; GVOZDEVA, A.N., inzh.; DOBRITSYNA, R.I.,  
tekhn.red.

[General engineering time norms for the technical standardization  
of machining processes on grinding machines; small-lot and piece  
production] Obshchemashinostroitel'nye normativy vremeni dlia  
tekhnicheskogo normirovaniia rabot na shlifoval'nykh stankakh;  
melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn.  
izd-vo mashinostroit.lit-ry, 1960. 38 p.

(MIRA 14:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye  
byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener  
TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-  
issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyu-  
shchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh  
normativov po trudu pri Nauchno-issledovatel'skom institute truda (for  
Shapiro). 4. TSentral'noye byuro promyshlennykh normativov po trudu  
pri Nauchno-issledovatel'skom institut truda (for Dayon, Zakharkin,  
Mayorova, Felikson, Filippova, Gvozdeva).

(Grinding and polishing)

LUREY, G.O.

EXTRACTS FROM THE LITERATURE	CITATIONS
Kharkov State Univ., Institute Mathematics, Mathematics No 1, 1951, p. 12. Chernovoretsky University Press High-Productivity Grinding) theory, Technology 2, 1951, p. 12. Originals printed.	7
Mr. (First Name), Mr. M. Radzhev, Doctor of Technical Sciences, Professor, Head of the Faculty of Machine Tools, Institute of Machine Tools, Moscow, Russia, USSR, 1951, p. 12. Radzhev, M. M. [Candidate of Technical Sciences, Doctor of Technical Sciences, Professor, Head of the Faculty of Machine Tools, Institute of Machine Tools, Moscow, Russia, USSR, 1951, p. 12.] (Mongol), V. V. [Electronically Prepared].	10
Abstracts. This book is intended for technical personnel in the field of production, particularly for engineers, technicians, and workers.	10
CONTENTS. This collection of articles deals with the problems of high-productivity grinding of metals, the influence of various factors on the productivity of grinding, and the development of new methods of grinding. A brief history of the development of the technology of high-productivity grinding is given, followed by a discussion of methods of calculating or calculating and bounding cutting speeds, tool life, and other factors influencing the productivity of grinding each article.	10
Abstract. G. S. [Proceedings]. The theory of the grinding cycle is discussed.	11
The article is a study of the grinding cycle of the production process. The author discusses the nature of the grinding cycle and its influence on the quality of grinding. The author recommends the use of a grinding cycle over the total life of the wheel for obtaining a high level of productivity.	11
Abstract. G. S. [Proceedings]. Principles of High-Productivity Grinding and the Influence of Grinding Parameters on the Quality of the Product.	12
The article deals with the principles of planning high-productivity grinding and the importance of a series of parameters in the grinding operation. The author also discusses the achievement of grinding efficiency and the achievement of the quality of the product.	12
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The investigation of high-speed grinding with porous grinding wheels is described. Advantages, disadvantages, and surface roughness of this type of grinding operation are indicated. The author recommends the standard construction of grinders and wheels for speeds of 50-90 m/sec.	13
Abstract. Prof. B. M. [Candidate of Technical Sciences]. Results of an Investigation of Grinding Characteristics of White Grinding Wheels	14
The author discusses the porosity, shape, and structure of self-dressing carbide-grinding wheels with void (500-900 m) wheels and their production. The results of experimental operations with this type of wheel at the KJZ Plant are presented.	14
Abstract. I. I. [Candidate of Technical Sciences]. Characteristics of the Properties of Ceramic Grinding Materials	15
The characteristics of the properties of ceramic materials as the basis of high-productivity grinding are analyzed. The relationship between the properties of ceramic materials and the grinding rate, tool life, and the characteristics of grinding are discussed. The relationship between temperature, grinding speed, pressure between wheel and work, speed, and productivity are utilized. The author suggests increasing productivity through higher speeds and more intensive operation.	15

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*LUR'YE, G. S.*

Vestimostnyj zhurnal "Vestnicheskij inzhenera v radioelektronike i mehanicheskoye tekhnike", No. 2 (Interchangeability and Engineering Measurements in Electronics), University Collection, No. 21, Moscow, March 1, 1960. 542 p.

Ed.: A.I. Tchumakov, Doctor of Technical Sciences, Professor; Editorial Council:

A.I. Yashinov (Chairman), B.M. Tsvet, Doctor of Technical Science, Professor;

I.S. Volodin, Docent; M.M. Gansberg, Docent; P.M. Gorenko, Docent; and O.Ia.

Tsvetov [Scientific Secretary] Faculties: Radioelectronics, M.T. Kiselev, Doctor

of Technical Sciences; Professors: I.A. Tsvet, V.P. Korobkov, Candidate

of Technical Sciences; Docents: L.I. Vorotnik, Candidate of Technical Sciences;

Teaching Eds. for Literature on Machine and Equipment Construction (Machine);

K.V. Polovinkin, Professor; Ed. of Publishing House: O.J. Kochetkov; Tech. Ed.:

V.P. Bobilova. This collection of articles is intended for scientific and technical personnel dealing with problems of interchangeability and engineering measurements in the machine and equipment industries.

Kazanskiy, B.K. [Candidate of Technical Sciences], and N.I. Novikov

[Engineer]. Optical Metrology Measuring Method for Large Parts

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Fedorov, T.A. New Methods for Checking the Micrometer

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Interferometric Interference in Precision Measurements of Graduated Scales

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Veretennikov, O. Ya. [Associate]. New Optical-Mechanical Instrument for

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Ovchinnikov, G.N. [Candidate of Technical Sciences]. Synthesis of

Interferometric Interference to Accuracy Specifications

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Vorob'ev, V.A.M. [Candidate of Technical Sciences, Docent].

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Kalashnikov, V. V. [Associate]. Methods for Measuring the Dimensions of

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Automation of Grinding Operation by Using an Adjustable Sensitive Stop

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Gorbunov, A.K. System of Setup Adjustment of Machine Tools

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Kondratenko, V.V. [Candidate of Technical Sciences, Docent], and A.D. Fomichev [Associate]. Replacement of Springs by Load in Feedback

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Kondratenko, V.V., and A.M. Chertovskikh [Senior Instructor].

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2

BILIK, Shaya Mendelevich, doktor tekhn.nauk; LUR'YE, G.B., retsenzent;  
SASOV, V.V., red.; DOBRITSYNA, R.I., tekhn.red.; GORDEYEVA,  
L.P., tekhn.red.

[Abrasive wet blasting for machining metals] Abrazivno-zhid-  
kostnaiia obrabotka metallov. Moskva, Gos.nauchno-tekhn.izd-vo  
mashinostroit.lit-ry, 1960. 197 p. (MIRA 13:5)  
(Grinding and polishing)

LUR'YE, G.B., prof., POLYANSKIY, P.M., dotsent, kand.tekhn.nauk

Using an active control system in the automation of grinding  
processes. Vzaim.i tekhn.izm v mashinostr.;meshvuz.sbor. no.2:480-  
493 '60. (MIRA 13:8)  
(Automatic control) (Grinding and polishing)

S/117/61/000/009/001/004

A004/A101

AUTHOR: Lur'ye, G.B., Professor

TITLE: Ways to increase the grinding efficiency

PERIODICAL: Mashinostroitel', no. 9, 1961, 22 - 24

TEXT: The author gives a detailed survey on the various methods which are applicable to increase the productivity of grinding operations and describes a number of fixtures and devices designed for this purpose. He points out that one possibility of increasing the productivity of grinding is the use of wider grinding wheels. Lately, grinding wheels for surface grinding have a width of up to 300 mm, and in centerless grinding, wheels having a width of 400, 600, and, in some cases even of 800 mm are successfully employed. The use of wider grinding wheels reduces the number of passes and thus results in a reduction of the machining time. With infeed grinding the efficiency can be increased by working simultaneously several surfaces either with the aid of a wide profiling wheel or with several wheels. In such cases it is expedient to equip the grinding machine with hydraulic copying devices for the dressing of the grinding wheel. Raising the cutting ability of the wheel is of utmost importance to achieve a higher grinding

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A004/A101

Ways to increase the grinding efficiency

efficiency. Investigations revealed that the cutting properties of the wheel are growing with an increased longitudinal feed during the dressing, with higher grinding conditions in connection with the increase in the degree of self-dressing, with increased wheel revolution numbers, with a decreased wheel hardness (using ceramic binders) and with a reduced size of the abrasive grain. The author describes two wheel dressing methods, one being used on machines with manual feed - in this case dressing is effected after the complete blunting of the wheel - while on automatic grinding machines the wheel should be dressed after partial blunting or continuously. Changes of the state of the effective surface of the wheel during its service life are the reason for the origination of natural oscillations. The natural oscillation amplitude increases during the service life of the wheel, moreover, this growth in amplitude takes place more rapidly with increased cutting conditions. This increase in the natural oscillation amplitude or acceleration can be used as unbiased criterion for the automation of the command for the dressing of the wheel. The author gives a description of an experimental design of a device giving the command for the wheel dressing automatically. The device has been developed by the Moskovskiy avtomekhanicheskiy institut (Moscow Automechanical Institute (MAMI) and represents a piezoelectrical accelerometer converting mechanical oscillations into electrical signals. Since automation of the

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A004/A101

## Ways to increase the grinding efficiency

grinding process is one of the main trends to increase the grinding efficiency, it is pointed out that the initial point in this respect is the automation of the working cycle. The distance between the initial wheel position and the surface being machined exceeding by many times the thickness of the metal layer being removed, it is necessary to cut the unproductive time losses arising during the approach of the grinding wheel to the workpiece. To eliminate these losses rapid-approach feed has to be used and, in connection with this, devices to determine the meeting point of wheel and workpiece. The Moscow Automechanical Institute together with NIITraktorosel'khozmash has developed a device for the overall automation of circular grinding machines on the basis of an optimum grinding cycle. The cycle consists of the rapid approach of the grinding stock, infeed, rough grinding, reversing and finish grinding. The rapid approach of the grinding stock is effected with a speed of 2,000 mm/min, while the change-over to the infeed is effected at a distance of 0.05 mm before the meeting point of wheel and workpiece. A detailed description of the individual operation cycles and a layout of the operation of the automation device are given. The commands for the control of the cycle are given depending on the results of measuring the dimensions of the part being machined. A fully automated circular grinding machine is described, having an automatic clamping chuck, a device for the automatic travel

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Ways to increase the grinding efficiency

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A004/A101

of the tail stock spindle, a storage magazine, a swivel loader with two arms operating in succession which are placed at an angle. A mechanism for the orientation of parts in longitudinal direction is provided for (see article of V.V. Mazurkevich, "Mashinostroitel", no. 4, 1961). This circular grinding machine was exhibited in 1960 at the Exhibition of National Economy achievements. There are 6 figures and 1 reference.

Card 4/4

VINNIK, L.M.; GRINBERG, R.Ya.; KAMINSKIY, Ya.A.; KLEPIKOV, V.D.; KUZNETSOV, A.M.; KUCHENEV, N.I.; STRUZHESTRAKH, Ye.I.; TISHIN, S.D.; KHARITONOV, A.B.; TSEYTS, I.E.; SHAPIRO, I.I.; SHAPIRO, M.Ya.; ANAN'YAN, V.A., retsenzent; VASIL'YEV, D.T., retsenzent; GORETSKAYA, Z.D., retsenzent; KARTSEV, S.P., retsenzent; KEDROV, S.M., retsenzent; KOMISSARZHEVSKAYA, V.N., retsenzent; KOPERBAKH, B.L., retsenzent; KORBOV, M.M., retsenzent; LEONOV, N.I., retsenzent; LUR'YE, G.B., retsenzent; NOVIKOV, V.F., retsenzent; GAL'TSOV, A.D., red.; VOL'SKIY, V.S., red.; KHISIN, R.I., red.; SEMENOVA, M.M., red. izd-va; MODEL', B.I., tekhn.red.

[Reference book for establishing norms in the manufacture of machinery; in 4 volumes] Spravochnik normirovshchika-mashinostroitelia; v 4 tomakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol.2. [Establishing technical norms for operating machine tools] Tekhnicheskoe normirovanie stanochnykh rabot. Pod red. E.I.Struzhestrakha. 1961. 392 p.

(MIRA 14:8)

(Industrial management) (Machine tools)

LUR'YE, G.B., prof.

Increasing the efficiency of grinding. Mashinostroitel' no.9:22-24  
S '61. (MIRA 14:10)  
(Grinding and polishing)

LUR'YE, G.B., prof.

Selecting strength criterion for grinding wheels in relation to  
the requirements of surface quality. Vest.mash. 41 no.6:60-63  
(MIRA 14:6)  
Je '61. (Grinding wheels)

GOKUN, Vladimir Borisovich; LUR'YE, G.B., prof., retsenzent;  
RZHAVINSKIY, V.V., red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Reducing the amount of metal used in machinery manufacture]  
Snizhenie konstruktivnoi metalloemkosti mashin. Moskva,  
Mashgiz, 1962. 242 p. (MIRA 15:3)  
(Machinery industry)

LUR'YE, G.B., pref.

Mechanizing scraping operations. Mashinostroitel' no.1:47  
Ja '62. (MIRA 15:1)

1. Chlen redaktsionnogo soveta zhurnala "Mashinostroitel'".  
(Grinding and polishing)

S/121/62/000/002/002/004  
DO40/D113

AUTHORS: Lur'ye, G.B., Polyanskiy, P.M., Mazurkevich, V.V., Kublanov, V.L.,  
Savel'yev, Yu.N., and Fragin, I.Ye.

TITLE: Automation of cylindrical grinding machines

PERIODICAL: Stanki i instrument, no. 2, 1962, 16-21

TEXT: New units designed for automating model 3151, 3161 and 3152 cylindrical grinders are described. These units, also suitable for other grinders of this type, were developed by the Nauchno-issledovatel'skiy institut tekhnologii traktornogo i sel'skokhozyaystvennogo mashinostroyeniya (NIITraktorosel'khozmash) (Technological Scientific Research Institute of Tractor and Farming Machines) in conjunction with the Moskovskiy avtomekhanicheskiy institut (MAMI) (Moscow Automechanical Institute). A simple grinder equipped with such units is converted into an automatic plunge-cut grinder. The following operations are automated: installing and clamping the work; positioning the work at the side face of the grinding wheel; measuring the work prior to and during grinding, with automatic control commands; moving the grinding head at different speeds; unclamping and removing the work as

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Automation of cylindrical ...

well as passing it on to the next machine; controlling the wheel dressing and the dressing process. The operation of individual automatic units is described, and the turning mechanism of an "automatic operator" with two gripping "hands", a self-clamping chuck, etc., is described. A grinder fitted with the units and set for grinding the necks of tractor track wheel axles is shown in a photograph. Reference is made to an automatic-control multicommand unit designed for controlling multistage grinding processes characteristic of modern grinding machines (Ref. 2: Izmeritel'noye ustroystvo dlya upravleniya dvizheniyem shlifoval'noy babki krugloshlifoval'nogo stanka [Measuring device for controlling the motion of the grinding head of cylindrical grinders], Author's Certificate no. 123423, of 18.3.1959; Ref. 7: Polyanskiy, P.M., Articles in the Symposium "Pribory i ustroystva aktivnogo kontrolya" ["Automatic Regulation Instruments and Devices"], Mashgiz, 1961). Foreign practice is referred to (British, Czechoslovakian, German) as regards grinding allowances and time losses caused by high allowances. The importance of automating Soviet grinders is stressed since most grinders still operate with hand-feed. There are 10 figures and 10 references: 6 Soviet-bloc and 2 non-Soviet bloc. The English-language reference is: "Time and Motion Study", no. 4, 1951, pp 15-25, and the catalogue of the Churchill Co.

Card 2/2

LUR'YE, G.B.

Selecting the strength criterion for a grinding wheel according  
to requirements of surface quality. Trudy Sem.po kach.poverkh.  
no.5:292-297 '61. (MIRA 15:10)  
(Grinding and polishing)

LUR'YE, G.B., doktor tekhn.nauk

Modern grinding machines and new grinding techniques.  
Mashinostroitel' no.11:42-44 N '62. (MIRA 15:12)  
(Grinding machines)  
(Grinding and polishing)

LUR'YE, G.B.

"Abrasives;" collected articles. Mashinostrcitel' no.8:46 Ag '64.  
(MIRA 17:10)

LUR'YE, G.B., prof.; POLYANSKIY, P.M., kand.tekhn.nauk; PANTYUKHOV, I.V.,  
TUROVA, V.M.

Automatic control of the grinding of tracks for conical roller  
bearings. Mashinostroitel' no.1:16-18 Ja '65.

(MIRA 18:3)

LUR'YE, G. G.

USSR/Engineering-Machining

Card : 1/1  
Authors : Lur'e, G. G., Prof.  
Title : Some questions on the theory of the machining process in circular grinding  
Periodical : Vest. Mash. 34/5, 44 - 50, May 1954  
Abstract : The removing of metal from a part in circular grinding is found to proceed in four stages. These stages are analyzed from a mathematical point of view with formulas for calculating the values of the various parameters involved. Graphs; tables.  
Institution : ....  
Submitted : ....

LUR'YE, G.K.

Model study of the working process of a single-bucket loading part.  
Trudy Inst. gor. dela Sib. otd. AN SSSR no.7:122-139 '62.  
(MIRA 16:9)

FEDOROV, D.I.; SHUBIN, M.A.; NEDOREZOV, I.A.; MASHKOVICH, O.N.;  
LUR'YE, G.K.

Basis for the prospective typification of earthmoving machines  
in the construction of transportation systems. Transp. stroi.  
15 no.9:43-45 S '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut transportnogo  
stroitel'stva.